

08CN8824-4
(GP2-0060-P)

CLAIMS

1. (original) A poly(arylene ether) blend comprising, based on 100 wt.% of the total blend:

about 10 to about 90 wt.% of a poly(arylene ether) resin;

about 5 to about 50 wt.% of a rubber-modified poly(styrene) resin that is a tapered block copolymer; and

about 2 to about 35 wt.% of an organic phosphate flame retardant;

wherein the blend has a percent transmittance after molding of at least about 35% measured at 1/8 inch thickness.

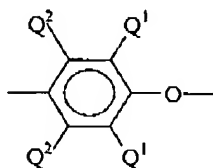
2. (original) The poly(arylene ether) blend of Claim 1, wherein the organic phosphate flame retardant is the bis diphenyl phosphate of bis-phenol A.

3. (original) The poly(arylene ether) blend of Claim 1, wherein the organic phosphate flame retardant is triphenylphosphate.

4. (original) The poly(arylene ether) blend of Claim 1, wherein the organic phosphate flame retardant is the bis diphenyl phosphate of resorcinol.

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5. (original) The poly(arylene ether) blend of Claim 1, wherein the poly(arylene ether) resin comprises a plurality of structural units of the formula (II):



(II)

wherein for each structural unit, each Q¹ is independently hydrogen, halogen, primary or secondary lower alkyl having up to about 7 carbon atoms, phenyl, haloalkyl, aminoalkyl, hydrocarbonoxy, or halohydrocarbonoxy wherein at least two carbon atoms separate the halogen and oxygen atoms; and each Q² is independently hydrogen, halogen, primary or secondary lower alkyl having up to 7 carbon atoms, phenyl, haloalkyl, hydrocarbonoxy or halohydrocarbonoxy wherein at least two carbon atoms separate the halogen and oxygen atoms.

6. (original) The poly(arylene ether) blend of Claim 5, wherein each Q¹ is an alkyl group having from 1 to 4 carbon atoms, and each Q² is hydrogen.

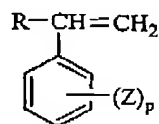
7. (original) The poly(arylene ether) blend of Claim 1, wherein the poly(arylene ether) resin is selected from the group consisting of homopolymer resins containing 2,6-dimethylphenylene ether units, random copolymer resins having 2,6-dimethylphenylene ether units in combination with 2,3,6-trimethyl-1,4-phenylene ether units, and copolymer resins derived from copolymerization of 2,6-dimethylphenol with 2,3,6-trimethylphenol.

8. (original) The poly(arylene ether) blend of Claim 1, wherein the rubber-modified poly(styrene) comprises up to about 50% diene monomer units.

9. (original) The poly(arylene ether) blend of Claim 1, further comprising about 1 to about 80 wt.% of a poly(styrene) resin.

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10. (original) The poly(arylene ether) blend of Claim 9, wherein the poly(styrene) resin is formed from one or more monomers having the formula (III):



(III)

wherein R is hydrogen, a lower alkyl group having from 1 to 7 carbons, or a halogen; Z is a vinyl group, a halogen, or a lower alkyl group having from 1 to 7 carbon atoms; and p is from 0 to 5.

11. (previously presented) The poly(arylene ether) blend of Claim 9, wherein the poly(styrene) resin is formed from a vinyl aromatic monomer selected from the group consisting of styrene, chlorostyrene, vinyltoluene, alpha-methyl styrene, bromostyrene, dichlorostyrene, and dibromostyrene.

12. (original) The poly(arylene ether) blend of Claim 9, wherein the poly(styrene) resin is a homopoly(styrene).

13. (previously presented) The poly(arylene ether) blend of Claim 10, wherein the poly(styrene) resin is derived from styrene and up to about 10 wt.% monomers having the formula (III) wherein R is a lower alkyl group having from 1 to 7 carbons or a halogen.

14. (original) The poly(arylene ether) blend of Claim 1 further comprising about 1 to about 15 wt.% of an impact modifier.

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15. (original) The poly(arylene ether) blend of Claim 14, wherein the impact modifier is selected from the group consisting of styrene-butadiene-styrene, styrene-butadiene, styrene-ethylene-butadiene, styrene-ethylene-propylene, styrene-ethylene-butadiene-styrene, styrene-ethylene-propylene-styrene, styrene acrylates, and combinations comprising at least one of the foregoing.

16. (original) The poly(arylene ether) blend of Claim 15, wherein the impact modifier is a styrene-butadiene or a styrene-butadiene-styrene block copolymer.

17. (previously presented) The poly(arylene ether) blend of Claim 1, further comprising an additional component selected from the group consisting of fillers, anti-oxidants, mold release agents, UV absorbers, stabilizers, lubricants, plasticizers, pigments, dyes, colorants, anti-static agents, and blowing agents.

18. (original) A transparent poly(arylene ether) blend comprising, based on 100 wt.% of the total blend:

about 10 to about 70 wt.% of a poly(arylene ether) resin;

about 10 to about 40 wt.% of a rubber-modified poly(styrene) resin that is a tapered block copolymer;

about 10 to about 70 wt.% of a poly(styrene) resin;

about 0 to about 10 wt.% of an impact modifier; and

about 5 to about 30 wt.% of an organic phosphate flame retardant;

wherein the blend has a percent transmittance after molding of at least about 35% measured at 1/8 inch thickness.

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19. (original) A transparent poly(arylene ether) blend comprising, based on 100 wt.% of the total blend:

about 30 to about 60 wt.% of a poly(arylene ether) resin;

about 15 to about 35 wt.% of a rubber-modified poly(styrene) resin that is a tapered block copolymer;

about 20 to about 50 wt.% of a poly(styrene) resin;

about 0 to about 5 wt.% of a impact modifier; and

about 10 to about 25 wt.% of an organic phosphate flame retardant;

wherein the blend has a percent transmittance after molding of at least about 35% measured at 1/8 inch thickness.

20. (original) The poly(arylene ether) blend of Claim 1, wherein the blend has a UL rating of V-0.

21. (original) The poly(arylene ether) blend of Claim 1, wherein the blend has a UL rating of V-1.

22. (original) The poly(arylene ether) blend of Claim 1, wherein the blend has a UL rating of V-2.

23. (original) The poly(arylene ether) blend of Claim 1, wherein after being set on fire the blend will extinguish itself in about 10 seconds or less.

24. (original) The poly(arylene ether) blend of Claim 1, wherein after being set on fire the blend will extinguish itself in about 20 seconds or less.

25. (original) The poly(arylene ether) blend of Claim 1, wherein after being set on fire the blend will extinguish itself in about 30 seconds or less.

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26. (original) The poly(arylene ether) blend of Claim 1, wherein the poly(arylene ether) resin has a number average molecular weight of about 3,000 to about 40,000 and a weight average molecular weight of about 20,000 to about 80,000, as determined by gel permeation chromatography.

27. (new) A transparent poly(arylene ether) blend consisting essentially of, based on 100 wt.% of the total blend:

about 10 to about 70 wt.% of a poly(arylene ether) resin;

about 10 to about 40 wt.% of a rubber-modified poly(styrene) resin that is a tapered block copolymer;

about 10 to about 70 wt.% of a poly(styrene) resin;

about 0 to about 10 wt.% of an impact modifier; and

about 5 to about 30 wt.% of an organic phosphate flame retardant;

wherein the blend has a percent transmittance after molding of at least about 35% measured at 1/8 inch thickness.

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28. (new) A transparent poly(arylene ether) blend consisting essentially of, based on 100 wt.% of the total blend:

about 30 to about 60 wt.% of a poly(arylene ether) resin;

about 15 to about 35 wt.% of a rubber-modified poly(styrene) resin that is a tapered block copolymer;

about 20 to about 50 wt.% of a poly(styrene) resin;

about 0 to about 5 wt.% of a impact modifier; and

about 10 to about 25 wt.% of an organic phosphate flame retardant;

wherein the blend has a percent transmittance after molding of at least about 35% measured at 1/8 inch thickness.